**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Capitol Heights, MD 20743**

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| In the Matter of | ) | |
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| Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems | ) | ET Docket No. 00-258 |
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| Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile Satellite Service | ) | ET Docket No. 95-18 |
| | ) | |
| The Establishment of Policies and Services Rules for the Mobile Satellite Service in the 2 GHz Band | ) | IB Docket No. 99-81 |
| | ) | |
| Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service | ) | RM-9498 |
| | ) | |
| Petition for Rule Making of UTStarcom, Inc., Concerning The Unlicensed Personal Communications Service | ) | RM-10024 |

**COMMENTS OF**
**TMI COMMUNICATIONS AND COMPANY,**
**LIMITED PARTNERSHIP**

TMI Communications and Company, Limited Partnership (TMI), a Canadian mobile satellite service (MSS) provider authorized to operate in the 2 GHz band,[1] hereby comments on the FCC's *Further Notice*[2] in the above-captioned proceeding.

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1 *See* TMI Communications and Company, Limited Partnership, Letter of Intent to provide Mobile-Satellite Services in the 2 GHz Bands, DA 01-1638, released July 17, 2001.

2 *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, FCC 01-224, 66 FR

TMI opposes the reallocation to advanced wireless services (e.g., third generation (3G) mobile services) of any MSS spectrum. As the FCC acknowledges (see, e.g., ¶ 3), no record basis currently exists for reallocating any specific part of the 2 GHz band to advanced wireless services or for reversing the agency's prior determination, affirmed only last July, that the public interest is best served by maintaining the 1990-2025 MHz and 2165-2200 MHz allocation for MSS.[3] That places a substantial factual burden on the proponents of any such spectrum reallocation.

Any change in the current MSS spectrum allocation in the U.S. also would be inconsistent with the allocation schemes of the United States' neighbors (Canada and Mexico). It would therefore raise significant coordination and/or interference issues in border areas for any new 3G services and it would reduce the scope for North American wide roaming for MSS and advanced wireless users alike.

If the FCC nevertheless decides to reallocate some MSS spectrum, no more than 10 MHz should be affected. A greater reduction in the existing MSS allocation would significantly impair the TMI and other 2 GHz MSS authorizations granted by the Commission in July 2001 and would jeopardize the viability of these new MSS businesses. The *Further Notice* expressly rejects that course: "[W]e propose that any reallocation of existing MSS spectrum would not significantly impair any of the current licensees' rights and reasonable expectations to retain its current assigned

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47618-01, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking* (released Aug. 20, 2001) ("*Further Notice*").

[3] *See* ICO Services Limited, Letter of Intent to Provide Mobile Satellite Services in the 2 GHz Bands, DA 01-1635, released July 17, 2001 at ¶¶ 30-31.

spectrum allotment and to acquire additional MSS spectrum for purposes of deploying and operating a fully matured 2 GHz MSS system."[4]

For this and the other reasons explained below, TMI also requests that the FCC: (a) confirm the assignment of at least 3.75 MHz of spectrum in both directions for each existing 2 GHz MSS operator; (b) reallocate MSS spectrum only from the upper portion of the uplink band (e.g., 2020-2025 MHz) and the lower portion of the downlink band (e.g., 2165-2170 MHz); (c) confirm that all 2 GHz MSS spectrum forfeited by an MSS operator for failure to meet a construction milestone will be returned to the MSS pool and assigned to other operators; and (d) confirm that no "spectrum cap" applies to 2 GHz MSS operators so that any operator is free to acquire additional spectrum (whether in connection with a license or LOI assignment, or the reassignment of forfeited spectrum). In addition, TMI supports adjustment of the current MSS band plan to require contiguous operation of MSS systems.

Finally, TMI stresses that its support of a limited reallocation (up to 10 MHz) of MSS spectrum to advanced wireless services and the other positions stated below are contingent on the adoption of a policy (or rule) requiring the beneficiaries of any reallocated spectrum to assume an equitable share of the costs of reallocating existing users in the 2 GHz band as a whole.

## I. FCC Reallocation of MSS Spectrum for 3G Services Would Be Inconsistent with Canadian Allocations And Raise New Coordination and Interference Issues

The *Further Notice* (at ¶ 14) details the history of the continent-wide (i.e., Region 2) allocation of the 1990-2025 MHz and 2165-2200 MHz bands to the MSS on a co-primary basis. It also details the allocation of the bands to MSS in the U.S., effective January 2000, but fails to note the like allocation of MSS spectrum by

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[4] *Id.* at ¶ 29.

America's neighbors, Canada and Mexico. This omission is significant because the harmonization of spectrum allocation across North America, whether for satellite or terrestrial uses, is highly desirable. Harmonization opens the possibility of continent-wide roaming; increases spectral efficiency by facilitating frequency coordination in border areas; and increases the addressable market for terminal equipment vendors, thereby increasing production volumes and lowering costs.

It follows, therefore, that the unilateral reallocation of spectrum by the U.S. (or any other North American country) is likely to place significant costs, not only on existing users but on any new licensee authorized to use the non-aligned spectrum.

In the *Canadian Table of Frequency Allocations* (2000 edition) the bands 1990-2025 MHz and 2165-2200 MHz are allocated on a primary basis to the Fixed, Mobile and Mobile-Satellite (Earth-to-space) services. In both bands national footnote C36 applies, which states:

> *In the bands 1990-2025 MHz and 2160-2200 MHz, a moratorium has been placed on the licensing of new systems in the fixed service. Existing fixed service systems operating in these bands will have priority over the mobile-satellite service until January 1, 2003. After this date, specific fixed service stations will be displaced, according to the transition policy, to enable implementation of mobile-satellite service systems in certain sub-bands. The earliest mandatory date for fixed service frequency assignments that may be subject to displacement will be January 1, 2003.*

There is no provision in Canada for the provision of 3G wireless services in these bands. Rather, in Canada 3G or IMT 2000 services have been allocated spectrum between 1.7 GHz and 1.9 GHz. Furthermore, Canadian policy with respect to the provision of MSS service in Canada from regional and global systems states:

> *...spectrum policy requirements with respect to allocation, utilization and efficiency, orderly deployment and co-existence with other radio services authorized for use in the*

*bands including any policy put in place to effect the displacement of existing services, must be met....*[5]

In view of the above, reallocation of portions of these MSS bands to 3G wireless in the United States could present coordination and/or interference difficulties in border areas. The spectral efficiency of both MSS and terrestrial systems also may be reduced if such systems must be restricted to operating in areas distant from the border.

At a minimum, therefore, before the FCC reallocates any MSS spectrum in this band, the public interest requires that the agency consult with both Canada and Mexico, and carefully evaluate the international coordination costs of reallocating MSS vis-à-vis non-MSS spectrum below 3 GHz that the *Further Notice* identifies as a candidate for reallocation (i.e., 1910-1930 MHz and 2390-2400 MHz). The FCC cannot make a rational, comparative public interest evaluation of the costs and benefits of reallocating any MSS spectrum unless the international consequences of any proposed action are an integral part of that analysis.

## II. Reallocation of More Than 10 MHz of MSS Spectrum Would Significantly Impair the 2 GHz MSS Authorizations of TMI and Like Parties

As noted, it is TMI's view that reallocation of any MSS spectrum is unwarranted and without record support. Even though IMT 2000 and other terrestrial services may hold the promise of bringing new functionality to mobile services in high density areas, so too do 2 GHz MSS systems in rural and remote areas. Congestion in other MSS bands could well limit the scope of high data rate services in those bands. Only the 2 GHz allocation can fulfill the potential of mobile, high-speed services in remote areas.

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[5] *Policy Framework for the Provision of Mobile Satellite Service via Regional and Global Satellite Systems in the Canadian Market*, Industry Canada RP-007, Rev. 2, March 1999.

Furthermore, demand for even higher data rate MSS services will increase over time and this demand can be met only through the use of larger amounts of spectrum.

The ultimate success of any of the currently authorized 2 GHz MSS systems cannot be predicted. But any reallocation of MSS spectrum to terrestrial mobile operators will almost certainly mean that the spectrum will never be used to provide services to remote and underserved areas.

If the Commission nevertheless decides to allocate some MSS frequencies to other services, it should respect the following principles.

A. Spectrum Available to 2 GHz MSS; Flexibility to Consolidate Operators

A minimum of 7.5 MHz of 2 GHz spectrum should continue to be available to each MSS operator. This is the approach proposed in paragraph 26 of the *Further Notice* under which a minimum of 60 MHz of spectrum would be available to the existing eight operators providing for a total of 3.75 MHz of spectrum for transmission in each direction.

As importantly, the FCC should confirm that the 3.75 MHz bi-directional allocation per operator is a spectrum floor and that there will be no *a priori* ceiling or "cap" placed on the amount of MSS spectrum that any operator can use on a primary (or secondary) basis. To foster spectrum-efficient operations, any entity should be free to combine its spectrum with that of another operator, provided the requisite assignment or transfer of control applications are approved. Likewise, as discussed further below, any entity that has met relevant milestones should be eligible to obtain 2 GHz spectrum that has been forfeited by another operator.

If spectrum is reallocated from MSS, it is also preferable that such spectrum be at the band edges, as suggested in Paragraph 31 of the *Further Notice* (i.e., from the top end of the uplink band, at 2020—2025 MHz, and/or the lower end of the downlink

band, at 2165-2170 MHz). Otherwise, spectral efficiency will be lost due to the need for guard bands and the possibility that both MSS and 3G systems may have to rely on spectrum that is more balkanized. Without further study, TMI has no preference as to which end of the MSS band should be truncated. For efficiency reasons alone, however, spectrum should not be taken from the middle of either MSS band.

B. Treatment of Abandoned Spectrum

Abandoned 2 GHz spectrum should be returned to the MSS pool. A *pro rata* share should be offered to remaining operators (which have met their milestones) as a means to ensure that viable systems will develop. Any remaining spectrum, or spectrum not accepted by remaining operators, should be retained by the FCC to accommodate future MSS applicants. It is not practical to allocate abandoned spectrum to non-MSS use since the result would either be balkanization of the band into non-contiguous segments for both services or a complete re-plan of the spectrum allocations, with the ensuing need to adjust system designs (or operations), every time spectrum is abandoned.

C. New Wireless Licensees Must Bear the Incidental Cost of Relocating BAS and FX Operators

TMI has insufficient information to determine if reallocation of a portion of the 2020-2025 MHz band would require Broadcast Auxiliary Service (BAS) operators to relocate all at once (i.e., to vacate more than the 18 MHz – from 1990-2008 MHz – designated under Phase I by the FCC's July 2000 decision[6]). However, the FCC should mandate that any parties newly licensed to operate in reallocated MSS

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6 *See Second Request and Order and Second Memorandum Opinion and Order*, 15 FCC Rcd 12315 (2000). Under the phased reallocation of BAS licensees adopted in this order, the first 2 GHz MSS to begin operations must clear 1900-2008 MHz; once this spectrum is exhausted, a second phase commences for reallocating BAS licensees in the 2008-2025 MHz band.

spectrum pay any incremental costs of relocating BAS and FX licenses, plus a *pro rata* share of the spectrum which they have been awarded. That is, the beneficiaries of any new allocation should pay any additional costs related to the need to shift all BAS providers at once plus a pro rata share of other costs (e.g., what MSS operators otherwise would have paid per MHz) based on relative amount of spectrum used.

With regard to the foregoing, the FCC also should invite the wireless industry to submit its own engineering and cost studies regarding band clearance for both the BAS and FX service. The burden should not be on MSS operators alone. In addition, given that more than one year of the two-year MSS/BAS negotiation period has now elapsed, if the FCC adopts a new allocation plan for MSS spectrum in the 1990-2025 MHz band, the FCC also should revisit the mandated period to complete negotiations.

## III. The FCC Should Permit 2 GHz MSS Operators to Freely Assign Authorization to Facilitate Efficient Service to the Public

At several points, the *Further Notice* evidences the FCC's interest in resolving any spectrum reallocation issues in this docket in a manner that will preserve the rights of incumbent 2 GHz MSS authorizations and protect the "reasonable expectation" of those parties to "acquire additional MSS spectrum for purposes of deploying and operating a fully matured 2 GHz MSS system."[7] In that regard, the *Further Notice* also invites comment on "marketplace approaches that could facilitate more intensive or efficient use of the 2 GHz MSS bands" and, in particular, "whether the agency "should permit MSS operators to consolidate operations" by, for example, permitting agreements that would enable systems operators to use "for a single system all or some portion of the spectrum assigned to their individual systems."[8] Noting that the agency's construction milestones and trafficking rules may prevent or limit such

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7 *Id.* at ¶ 29.

8 *Id.* ¶ 35.

arrangements, the FCC seeks comment on whether those rules should be waived or modified.

It is TMI's view that the FCC should address MSS system consolidation issues on a case-by-case basis. However, the Commission should signal its willingness to grant waivers of Part 25 of its Rules – as well as the milestone conditions in 2 GHz MSS authorizations – if the public interest would be served thereby. The FCC also should clarify in this docket that, consistent with the existing MSS rules, no "spectrum cap" will be applied to this service so that existing 2 GHz MSS operators have the flexibility to make available transmission capacity (via a license assignments, long-term lease or otherwise) to another 2 GHz operator in a fashion that is most likely to promote a viable MSS business.

The existing Part 25 rules for MSS were adopted in a strikingly different economic climate, and the Commission should adapt its administration of those rules to the times so as to facilitate new 2 GHz MSS offerings. Today, the avoidance of new MSS industry bankruptcies not the remote possibility of "unjust enrichment" should be the FCC's major concern. Accordingly, the agency should use its final order in this docket to indicate that it will take a flexible approach to its trafficking rules, where warranted, to ensure that 2 GHz operators can develop a viable business.[9]

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[9] Among other things, for example, the FCC could use this docket to confirm the *dicta* in the International Bureau's recent decision in *NetSat 28 Company, L.L.C.*, DA 01-1761, released July 26, 2001. There the Bureau indicated that the trafficking rules would not apply where the assignor is a licensee that has entered into a construction contract or commenced significant post-licensing design work (i.e., more than a bare license is being transferred).

## IV. Conclusion

There is currently no basis for reallocating MSS spectrum to advanced mobile services and, even if there were, no more than 10 MHz of spectrum should be reallocated from the edge of the current MSS bands. Any beneficiaries of the reallocation should bear the incremental costs of relocating incumbent users. The FCC also should confirm that existing 2 GHz grantees will have the flexibility they need to use the remaining MSS spectrum as they see fit by, *inter alia*, assigning or licensing their spectrum to other operators.

Respectfully submitted,

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## CERTIFICATE OF SERVICE

I, Learetta L. Parrett, hereby certify that on this 22nd day of October, 2001, a copy of the foregoing Comments of TMI Communications and Company, Limited Partnership, was either mailed first class, postage pre-paid, or hand delivered* to each of the following:

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